

## APPENDIX A

## PENDING CLAIMS AFTER ENTRY OF THE AMENDMENT

1. (Thrice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

- (a) the nucleotide sequence as set forth in SEQ ID NO: 1;
- (b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NO: 2; and
- (c) a nucleotide sequence complementary to either of (a) or (b).

2. (Thrice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence encoding a polypeptide that is at least 90 percent identical to the polypeptide set forth in SEQ ID NO: 2, wherein the encoded polypeptide has at least 1,649 amino acids and has human E3 $\alpha$  ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2; and
- (b) a nucleotide sequence complementary to (a).

3. (Thrice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with a substitution of one to 100 conservative amino acids, wherein the polypeptide has human E3 $\alpha$  ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2;
- (b) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with an insertion of one to 100 amino acids, wherein the polypeptide has human E3 $\alpha$  ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2, and optionally comprises a truncation and/or deletion up to about 100 amino acids;

(c) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with an internal deletion of one to 100 amino acids, wherein the polypeptide has human E3 $\alpha$  ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(d) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 which has a C- and/or N-terminal truncation up to about 100 amino acids, wherein the polypeptide has human E3 $\alpha$  ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2;

(e) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with a modification of one to 100 amino acids selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has human E3 $\alpha$  ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2; and

(f) a nucleotide sequence complementary to any one of (a)-(e).

4. (Amended) A vector comprising the nucleic acid molecule of any one of claims 1, 2, or 3.

5. (Original) A host cell comprising the vector of claim 4.

6. (Original) The host cell of claim 5 that is a eukaryotic cell.

7. (Original) The host cell of claim 5 that is a prokaryotic cell.

8. (Amended) A process of producing a human E3 $\alpha$  ubiquitin ligase polypeptide comprising culturing the host cell of claim 5 under suitable conditions to express the polypeptide.

D4 10. (Amended) The process of claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native human E3 $\alpha$  ubiquitin ligase polypeptide operatively linked to the DNA encoding the human E3 $\alpha$  ubiquitin ligase polypeptide.

D5 11. (Original) The isolated nucleic acid molecule according to claim 2 wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

D6 46. (Amended) A composition comprising a nucleic acid molecule of any one of claims 1, 2, or 3.

D7 47. (Original) A composition of claim 46 wherein said nucleic acid molecule is contained in a viral vector.

D8 48. (Amended) A viral vector comprising a nucleic acid molecule of any one of claims 1, 2, or 3.

D9 59. (Thrice Amended) A reagent comprising a detectably labeled polynucleotide according to any one of claims 1 to 3.

D10 61. (Twice Amended) A method for determining the presence of a human E3 $\alpha$  ubiquitin ligase nucleic acid in a biological sample comprising the steps of:

(a) providing a biological sample suspected of containing a human E3 $\alpha$  ubiquitin ligase nucleic acid;

(b) contacting the biological sample with a the reagent according to claim 59 under conditions wherein the reagent will hybridize with a human E3 $\alpha$  ubiquitin ligase nucleic acid contained in said biological sample;

(c) detecting hybridization between the human E3 $\alpha$  ubiquitin ligase nucleic acid in the biological sample and the reagent; and

(d) comparing the level of hybridization between the nucleic acid in the biological sample and the reagent with the level of hybridization between a known concentration of human E3 $\alpha$  ubiquitin ligase nucleic acid and the reagent.

62. (Twice Amended) A method for detecting the presence of a human E3 $\alpha$  ubiquitin ligase nucleic acid in a tissue or cellular sample comprising the steps of:

(a) providing a tissue or cellular sample suspected of containing a human E3 $\alpha$  ubiquitin ligase nucleic acid;

(b) contacting the tissue or cellular sample with a the reagent according to claim 59 under conditions wherein the reagent will hybridize with a human E3 $\alpha$  ubiquitin ligase nucleic acid;

(c) detecting hybridization between the human E3 $\alpha$  ubiquitin ligase nucleic acid in the tissue or cellular sample and the reagent; and

(d) comparing the level of hybridization between the nucleic acid in the tissue or cellular sample and reagent with the level of hybridization between a known concentration of human E3 $\alpha$  ubiquitin ligase nucleic acid and the reagent.

63. (Original) The method of claim 59 wherein said polynucleotide molecule is DNA.

64. (Original) The method of claim 59 wherein said polynucleotide molecule is RNA.

65. (New) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence as set forth in SEQ ID NO: 18;  
(b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NO: 19; and  
(c) a nucleotide sequence complementary to either of (a) or (b).